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Response under 37 C.F.R. § 1.116
Expedited Procedure
Examining Group 2828

PATENT
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AF/ 2828
Response
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Shinichi TAKAHASHI et al.)
Application No.: 09/770,673)
Filed: January 29, 2001)
For: OPTICAL PICKUP APPARATUS)
AND LASER DIODE CHIP)

BOX AF

Group Art Unit: 2828

Examiner: J. Menefee

Commissioner for Patents
Washington, D.C. 20231

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Sir:

RESPONSE AND REQUEST FOR RECONSIDERATION

In response to the Final Office Action dated September 23, 2002 (Paper No. 8), the period of response to which extends through December 23, 2002, reconsideration and withdrawal of the rejections set forth in the pending Office Action are respectfully requested.

Summary of the Office Action

In the Office Action, claims 1-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,619,521 to Tanaka. The drawing correction filed on September 4, 2002 has been approved.

Drawing Requirement

The Office Action indicates that the drawing correction filed on September 4, 2002 has been approved. Accordingly, formal drawings incorporating this change are now required. In

response, a Submission of Formal Drawings incorporating the approved drawing change is concurrently submitted herewith.

Rejections under 35 U.S.C. § 103(a)

In the Office Action, claims 1-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,619,521 to Tanaka. This rejection is respectfully traversed for at least the following reasons.

In the Amendment filed on September 4, 2002, Applicants set forth that Tanaka does not teach or suggest the claimed combinations comprising a plurality of light emitting portions formed on a substrate for emitting laser beams to be irradiated to a recording medium in a same emitting direction, with the laser beams having different wavelengths so as to correspond to different types of recording mediums.

The Final Office Action states that it does not agree with this argument because “[r]egardless of what the lasers are being used for, they perform different functions and therefore will have different wavelengths.” The Office Action concludes that because the laser beams emitted from emitting parts LD1 and LD3 each have “a different purpose” then they “inherently have different wavelengths.” Applicants respectfully traverse the Office Action’s assertions on this point for the least the following reasons.

Applicants respectfully submit that there is no teaching or suggestion in Tanaka of any of the emitting parts LD1-LD3 emitting laser beams having different wavelengths from each other. On the contrary, emitting part LD1 emits a laser beam for detecting an RF signal indicative of the state of a pit formed on an optical disk, emitting part LD2 emits a laser beam for detecting a tracking error signal in cooperation with the laser beam of LD1, and emitting part LD3 emits a laser beam for detecting a focusing error signal in cooperation with the laser beam of LD1. The

indication that the respective laser beams detect tracking and focusing error signals by working in cooperation with each other would lead one to more likely believe that the beams are emitted at the same frequencies or wavelengths.

Regardless, however, despite the Office Action's unsupported assertion to the contrary, Applicants respectfully submit that Tanaka does not teach or suggest that these respective beams are emitted at different wavelengths, as recited in independent claims 1 and 4 of the instant application. With regard to the Office Action's assertion of inherency on this point, Applicants respectfully submit that M.P.E.P. § 2112 states that inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient ... In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art."

The Final Office Action goes on to concede that Tanaka does not disclose "that the emitted laser beams correspond to different types of recording medium." The Office Action then goes on to assert, however, that it is "well known that optical pickups are used to read media such as CDs and DVDs, and it is known to use a single optical pickup with two different beams to read/write on these media." The Office Action further alleges that it "would have been obvious to one skilled in the art to make Tanaka's optical pickup device read/write CDs and DVDs as this is typical in an optical pickup. Thus, lasers LD1 and LD3 will correspond to different types of recording medium." Applicants respectfully traverse these assertions for at least the following reasons.

The Office Action asserts that it is "well known that optical pickups are used to read media such as CDs and DVDs, and it is known to use a single optical pickup with two different

beams to read/write on these media.” Even assuming, strictly arguendo, that this assertion could be taken as true without the application of a reference actually showing such an arrangement, the claims of the instant application involve selectively providing one of a plurality of laser beams within the optical pickup apparatus depending on the type of recording medium to be used at a particular time. Such a novel arrangement is neither shown nor suggested by Tanaka, and is also not even met by the Office Action’s assertion quoted above. Nevertheless, in the event that this rejection might be maintained in a future Office Action, Applicants respectfully request that the Examiner cite a reference in support of his position, in accordance with M.P.E.P. § 2144.03.

Moreover, Applicants respectfully submit that in Tanaka, PD1, PD2 and PD3 are photodetectors for detecting the quantities of returning light reflected by a recording surface of an optical disk to which laser beams emitted from the emitting parts LD1, LD2 and LD3 are irradiated, respectively, as shown in Fig 2(a). The emitting parts LD1 and LD2 for detecting a tracking error signal are required to emit the laser beams having the same wavelength to form spots, which are equivalent in size, on the optical disk as shown in Fig. 3(a). The size of a spot formed by a laser beam irradiated on a disk is in proportion to the wavelength of the laser beam. The tracking error signal is the difference h_0 between an output a_0 of photodetector PD1 and an output b_0 of photodetector PD2, as shown in Fig. 3(b). Similarly, the emitting parts LD1 and LD3 for detecting a focusing error signal are required to emit the laser beams having the same wavelength to form spots, which are equivalent in size, on the optical disk. The focusing error signal is the difference between an output of photodetector PD1 and an output of photodetector PD3. Therefore, Applicants respectfully submit that the laser beams respectively emitted from the emitting parts LD1, LD2 and LD3 have the same wavelength. The Office Action’s characterization of Tanaka is thus respectfully traversed for at least the foregoing reasons.